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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,664	11/15/2006	Gregor Herth	283280US0PCT	4021

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EXAMINER	
SALVITTI, MICHAEL A	

ART UNIT	PAPER NUMBER
4131	

NOTIFICATION DATE	DELIVERY MODE
11/14/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/567,664	HERTH ET AL.	
	Examiner	Art Unit	
	MICHAEL SALVITTI	4131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :02/09/2006, 1/24/2007, 9/21/2007.

DETAILED ACTION

Specification

1. The use of the trademark Versenex 80 has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Objections

2. Claim 5 is objected to because of the following informalities:

Claim 5 is objected to for the use of "preferable" limitation. The claims are definite because one of ordinary skill in the art recognizes that the "preferable" limitation is optional or exemplary, and not an express recitation of the claim. However, such "preferable" limitations have not traditionally been used in U.S. patent claims. Therefore, the examiner requests that the "preferable" ranges/limitations be deleted from the claims, and inserted into new dependent claims.

Appropriate correction is required.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims

are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10/567,909. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the significant overlap of ratios between the second polymer and the first polymer, and overlapping ranges have been held to establish prima facie obviousness. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-9 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,225,395 to *Nzudie et al.*

The compositions and disclosed in claims 1 and 8 have been demonstrated by Example 1 of '395 (see column 6, lines 7-51 and Table in the middle of columns 7 and 8). *Nzudie* discloses the synthesis of water-soluble polymers comprising cationic dispersants; these dispersants are analogous to the pre-formed "second polymer" disclosed in the instant application. The dispersant contains 71.6% cationic monomer (see Table), and constitutes 10.5% of the weight (see Table).

Further, as to claims 1 and 7, after the synthesis of this dispersant, a monomer mixture (analogous to the "first polymer" of the instant application) of non-ionic and ionic monomers (styrene and acryloxyethyltrimethylammonium chloride - QUAT MC-, respectively, column 6, lines 30-51) is polymerized via radical initiation with 2,2'-azobis(2,4-dimethylvaleronitrile) - ABAH - (column 6, line 40). This second reaction is propagated in an aqueous medium (column 6, line 34), and the polymer contains 34.8% ionic monomer as calculated by the examiner (see Table; QUATMC/(QUATMC + Styrene), 1/(1+1.87)).

As to claims 2-3, the molecular weights of the compositions in '395 are inherent due to the fact that the preparative methods outlined in the instant application are analogous to the preparations disclosed in Example 1 of '391.

The monomers corresponding with the first and second polymers in the instant application have been anticipated by structure (see claim 1 of '395), with the structure

serving as a genus. Although the monomers are not disclosed by name, the species disclosed are at once envisaged as quaternized ammonium (meth)acrylamides by these chemical structures, with regards to instant claims 4, 5, 19 and 20. See MPEP § 2131.02.

As to claim 6, Example 7 of '395 (column 6, lines 60-68) discloses copolymerization of styrene and maleic anhydride following the method given by Example 1. Maleic anhydride is a water-soluble non-ionic monomer.

As to claim 9, Table 1 shows that the first cationic polymer has a lower charge density than the second cationic polymer.

With respect to claims 16-18, '395 discloses the composition as a flocculant (column 1, line16). *Nzudie* further states that the powder is added to adding these powders to solutions (column 1, lines 6-42), and anticipates the compositions' applications in processing industrial waste water (column 1, line 16), including paper retention (column 5, line 68).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 10, 11 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,225,395 to *Nzudie et al* and U.S. Patent No. 4,857,610 to *Chmelir* et al.

Patent '395 discloses all features regarding the method of producing the polymer described in claims 1-5, except it does not teach the starting temperature of the reaction, nor the methods of drying and reducing the size of the polymer.

Nzudie states that the polymerization occurs in a range of -40°C to 200°C (column 5, line 23). Because the starting temperature was not specified, it can be assumed that the chemicals were at room temperature, which is approximately 20-25°C, and therefore within the limitations of claim 10, which require a starting temperature below 25°C. Furthermore, with respect to claim 11, it can be assumed that since the polymerization occurs in a range of -40°C to 200°C that the chemicals were cooled to the specified temperature before the reaction was initiated, with the motivation of increasing the molecular weight.

Regarding methods of drying, *Nzudie* teaches the applications of the final product in powder form, without teaching the specific method of drying and grinding the

polymer. Since the product is a powder, it is an inherently dry and finely ground composition. *Chmelir* teaches methods of drying using a polymerization belt, at a temperature of 101°C (see column 13, lines 35-59 of '610). The drying methods of claims 10 and 14-15 of the instant application are *Chmelir's* methods applied to '395.

Drying and grinding processes are well known in the art. Thus, it would have been obvious to one of ordinary skill in the art to apply a new process of drying and grinding to *Nzudie's* product, with the motivation of creating a more favorable particle size.

9. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,225,395 to *Nzudie et al.* and U.S. Patent No. 4,857,610 to *Chmelir* et al. as applied to claim 10 above.

Table 1 (columns 7 and 8 middle of page) shows a solids content of 30.7% for Example 1 of '395.

Redox reagents (column 5, lines 10-14) and UV-active agents (column 5, lines 15-17) are disclosed in '395.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL SALVITTI whose telephone number is (571)270-7341. The examiner can normally be reached on Monday to Friday 8AM to 5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571)272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/
Supervisory Patent Examiner
Art Unit 4131

M.S.